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IMPLEMENTATION AND REVIEW OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES

TABLE OF CONTENTS

	Paragraphs
I. INTRODUCTION	1–3
II. SUPPORT TO THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES	4–33
III. REVIEW OF THE GLOBAL PLAN OF ACTION	34–38
IV. GUIDANCE SOUGHT	39–42

I. INTRODUCTION

1. At its Eighteenth Regular Session in 2021, the Commission on Genetic Resources for Food and Agriculture (Commission) considered the implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources¹ (Global Plan of Action). The Commission invited countries to strengthen their efforts to implement the Global Plan of Action and to contribute, through their National Focal Points (NFPs), to the development and testing of the new global information system on forest genetic resources (FGR), and to continue providing data on FGR. In addition, it encouraged countries to continue mainstreaming FGR into larger and holistic actions on sustainable forest management and forest-based adaptation and mitigation measures, as well as to identify needs for specific and strategic actions on FGR.²

2. The Commission requested FAO to continue coordinating and supporting the implementation of the Global Plan of Action, in collaboration with regional networks on FGR and relevant international organizations.³ It further requested FAO to continue its efforts in developing the new global information system on FGR.

3. This document summarizes the activities FAO has undertaken since the Commission's last session to support, in collaboration with its partners, the implementation of the Global Plan of Action. The activities are grouped according to the four Priority Areas of the Global Plan of Action, for consideration by the Working Group. The document *Preliminary Second Report on the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources*⁴ provides a summary of national efforts to implement the Global Plan of Action, based on country reports received by FAO. This document also proposes a process for reviewing the Global Plan of Action in response to the findings of *The Second Report on the State of the World's Forest Genetic Resources* (Second Report).⁵

II. SUPPORT TO THE IMPLEMENTATION OF THE GLOBAL PLAN OF ACTION FOR THE CONSERVATION, SUSTAINABLE USE AND DEVELOPMENT OF FOREST GENETIC RESOURCES

a) Improving the availability of, and access to information on forest genetic resources (Priority Area 1)

4. The conservation, sustainable use and development of FGR require reliable information and knowledge on forest trees and other woody plant species, as well as on the ecosystems in which these species are naturally growing or planted by people. One of the key findings of the first report on *The State of the World's Forest Genetic Resources*⁶ was that the availability of information on FGR varies considerably from country to country, and that additional, accurate information on FGR aggregated at regional and global levels is crucial. The Global Plan of Action therefore calls for improving the availability of, and access to information on FGR at national, regional and international levels.

Monitoring the implementation of the Global Plan of Action

5. At its Sixteenth Regular Session, the Commission adopted targets, indicators and verifiers for FGR to be used as assessment tools for monitoring the implementation of the Global Plan of Action, as well as a monitoring schedule.⁷ The reporting process for the *First Report on the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic*

¹ FAO. 2014. *Global plan of action for the conservation, sustainable use and development of forest genetic resources*. Rome. <http://www.fao.org/3/i3849e/i3849e.pdf>

² CGRFA-18/21/Report, paragraph 62.

³ CGRFA-18/21/Report, paragraph 63.

⁴ CGRFA/WG-FGR-7/23/4/Inf.1.

⁵ CGRFA/WG-FGR/7/23/3.

⁶ FAO. 2014. *The State of the World's Forest Genetic Resources*. Rome. <https://www.fao.org/3/i3825e/i3825e.pdf>

⁷ CGRFA-16/17/Report, paragraph 74.

Resources (First Implementation Report)⁸ took place in 2017–2018, and FAO presented the report to the Seventeenth Regular Session of the Commission in 2019.

6. The *Second Report on the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources* (Second Implementation Report) was scheduled to be prepared in conjunction with the preparation of Second Report. For this purpose, the Commission adopted, at its Seventeenth Regular Session, the timeline⁹ and guidelines¹⁰ for preparing country reports. According to the timeline, the Working Group is expected to consider the Second Implementation Report at its current session.

7. The preparation of the Second Implementation Report was initiated in June 2019. Details are described in the document *Preparation of The Second Report on the State of the World's Forest Genetic Resources*.¹¹

8. By January 2023, a total of 66 countries had provided data and information through the online questionnaire for the preparation of the Second Implementation Report (Table 1).

Table 1. List of countries (66) that provided data and information through the online questionnaire (as of January 2023).

Region	Countries
Africa	Burkina Faso, Eswatini, Ethiopia, Guinea, Kenya, Madagascar, Mauritania, Morocco, Namibia, Niger, South Africa, Zimbabwe
Asia	China, India, Japan, Republic of Korea, Lao People's Democratic Republic, Malaysia, Sri Lanka, Thailand
Europe	Armenia, Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Russian Federation, Serbia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine
Latin America and the Caribbean	Argentina, Brazil, Chile, Ecuador, Mexico, Saint Lucia
Near East	Iran (Islamic Republic of), Lebanon, Yemen
North America	Canada, United States of America
Southwest Pacific	Australia, Fiji, Vanuatu

9. Concerning the regional networks, reports were received from the Asia-Pacific Forest Genetic Resources Programme (APFORGEN)¹² and the European Forest Genetic Resources Programme (EUFORGEN).¹³ In addition, Botanic Gardens Conservation International (BGCI)¹⁴ and the Royal Botanic Gardens, Kew (RBG)¹⁵ submitted reports.

10. Based on the reports received, FAO prepared a preliminary Second Implementation Report¹⁶ for information of the Working Group. It provides detailed information on the progress made by reporting countries in implementing the Global Plan of Action and highlights the contributions of the regional networks and international organizations.

⁸ CGRFA-17/19/10.2/Inf.1.

⁹ CGRFA-17/19/10/3, *Appendix II*.

¹⁰ CGRFA-17/19/10.3/Inf.1.

¹¹ CGRFA/WG-FGR-7/23/3.

¹² <http://www.apforgen.org/>

¹³ <http://www.euforgen.org/>

¹⁴ <https://www.bgci.org/>

¹⁵ <https://www.kew.org/>

¹⁶ CGRFA/WG-FGR-7/23/4/Inf.1.

11. The preliminary Second Implementation Report indicates that progress has been made under all four priority areas of the Global Plan of Action. It also confirms that the four priority areas remain highly relevant, and that efforts aimed at implementing these priority areas at national, regional and global levels should be continued and increased. The Second Implementation Report provides a more comprehensive picture of the progress made than the previous report since the number of reporting countries increased to 66, as compared to the 44 countries that reported in 2018. However, it should be kept in mind that the 66 countries reporting for the Second Implementation Report represent only 62 percent of the countries that have so far nominated a NFP for FGR, and only 37 percent of the 179 member countries of the Commission.

Global information system on forest genetic resources

12. In 2020, FAO launched two global projects on FGR; one to strengthen the technical capacity of the NFPs to gather and report FGR data, and another one supporting the development of a global information system on FGR. Both projects are financed by the Government of Germany with extra-budgetary contributions (approximately USD 1 million). The projects contribute directly to the implementation of the Global Plan of Action and in particular Priority Area 1.

13. During the reporting period, FAO continued with the development of the information system. During the 2020–2021 regional meetings, it also briefed the NFPs and other national experts on the development of a new global information system on FGR.

14. The information system will be composed of a public website and a restricted reporting interface accessible only for the NFPs to manage the data on FGR. On the website, the reported data will be visualized using dynamic dashboards and maps. Search functions will allow the users to search and display the data by countries, regions, species or specific indicators. The users can also download data and export summary graphs and tables.

15. On the restricted site, the online questionnaire will be presented with improved visualization as compared to the OpenForis platform. Furthermore, the NFPs can download the completed questionnaire and species-specific data for their own use. The restricted site will also include a country summary page providing an overview of the reported data, including the date and time of the earlier data submissions. Through the restricted site, the NFPs can also propose adding new species names to the global list of species in the online questionnaire.

16. Between December 2021 and January 2022, FAO carried out a survey among the NFPs with the aim of identifying key functionalities for the user-interface of the information system. Inputs were received from 37 NFPs. In their responses, the NFPs recommended that the information system provide access to previously reported data, be user-friendly and allow for the use of different operating systems and different internet browsers for data entry.

17. Regarding the public website, the NFPs recommended that the data be visualized and summarized in an appealing way for non-experts and policymakers using tables, graphics, dashboards and maps. In addition, it was suggested that the data be searchable based on different criteria, such as countries, species and the indicators used for monitoring the implementation of the Global Plan of Action. Possibilities for downloading or printing the reported data and for reporting data offline were also mentioned by several NFPs. It was also stressed that the reporting interface should be made available in different languages. Concerning other potential uses of the new information system, the NFPs recommended keeping in mind the reporting requirements of international processes relevant to FGR, such as the Convention on Biological Diversity.

18. Currently FAO is preparing a user manual explaining the structure and functionalities of the new information system. Furthermore, it is planning to organize regional online training events for the NFPs in all regions in 2023. These events will also offer NFPs an opportunity to check that the data they reported in the current reporting system have been correctly migrated into the new one.

b) *In situ* and *ex situ* conservation of forest genetic resource (Priority Area 2)

19. *In situ* conservation is the preferred means of conserving FGR as it allows forest trees and other woody plants species to continue their evolutionary processes and adaptation to changes. *Ex situ* conservation of FGR is a necessary complement to *in situ* conservation, especially when population size is critically low in the wild. The Global Plan of Action recognizes the important roles of protected areas, managed forests and trees on farms in the conservation of FGR and, under its Priority Area 2, calls for action to maintain genetic diversity and the evolutionary processes of these species by better implementing and harmonizing measures to conserve FGR, both *in situ* and *ex situ*.

20. FAO has supported many countries across regions in developing large national projects that aim at strengthening the conservation and sustainable management of forests, including forest and landscape restoration. These projects contribute, directly or indirectly, to the implementation of the Global Plan of Action and, while they are more relevant to Priority Area 3 (sustainable use, development and management of FGR), several of them also include activities that enhance *in situ* conservation of FGR. Funding for such large national projects has been predominantly provided by the Global Environment Facility (GEF) and the Green Climate Fund (GCF). The details of the projects are provided below under Priority Area 3 (see II.(c)). Currently, there is no FAO-coordinated project specifically focussing on *ex situ* conservation of FGR.

21. The new global information system on FGR, once launched, can contribute to the strengthening of *in situ* and *ex situ* conservation of FGR by enabling countries to demonstrate their progress in this area, and by helping them to signal to potential donors those aspects that would need further investments.

c) Sustainable use, development and management of forest genetic resources (Priority Area 3)

22. Sustainable forest management aims at using forests and trees in such a way that their capacity to provide wood and non-wood products, socioeconomic benefits and environmental services do not diminish over time. Paying due attention to FGR and genetic considerations is therefore crucial for achieving truly sustainable management of forests, as well as for ensuring long-term conservation of forest biodiversity. Under its Priority Area 3, the Global Plan of Action aims at enhancing the sustainable use, development and management of FGR as a contribution to sustainable development, food security and poverty alleviation.

23. The FAO portfolio of GEF projects focusing on forests and trees has increased significantly.¹⁷ It includes the Sustainable Forest Management Impact Programme on Dryland Sustainable Landscapes (DSL) to support efforts to avoid, reduce and reverse deforestation, degradation and desertification in 11 countries in Africa and Asia (Angola, Botswana, Burkina Faso, Kazakhstan, Kenya, Malawi, Mongolia, Mozambique, Namibia, United Republic of Tanzania and Zimbabwe). The DSL Impact Programme became operational in June 2021 and is led by FAO in partnership with the World Bank, the International Union for Conservation of Nature and the World Wide Fund for Nature. The GEF funding for this programme is about USD 104 million. Most programme partner countries are planning to strengthen their tree seed systems as part of the national projects. Furthermore, FAO is currently supporting several other countries¹⁸ to implement GEF-funded projects that aim to enhance sustainable forest management or forest and landscape restoration.

¹⁷ Further information on FAO-led GEF projects is available at: <http://www.fao.org/gef/en/>

¹⁸ Integrated forest and biodiversity management for sustainable development in the Biban mountain range in Algeria (2022–2027); Rehabilitation and integrated sustainable development of Algerian cork oak forest production landscapes (2021–2025); Forest and landscape restoration supporting landscape and livelihoods resilience in the Central African Republic (2018–2023); Sustainable forest management to enhance the resilience of forests in China to climate change (2016–2023); Sustainable management of wooded production landscapes for biodiversity conservation in Haiti (2022–2028); Smart adaptation of forest landscapes in mountain areas in Lebanon (2016–2023); Reversing deforestation and degradation in high conservation value chilgoza pine forests in Pakistan (2018–2024); Enhancing biodiversity, ecosystem flows, carbon stocks through sustainable forest

24. FAO's portfolio of GCF projects has also grown rapidly and now includes ongoing projects and approved full proposals with special emphasis on forests and trees in 12 countries.¹⁹ These GCF projects aim at combating deforestation and mitigating climate change with tree-planting efforts and by enhancing the management of existing forests. They often also include other forest-related activities to improve the livelihoods of local people and to conserve forest biodiversity.

25. Other FAO projects and programmes have also continued to contribute to the implementation of the Global Plan of Action. Under the framework of the Action Against Desertification (AAD) initiative,²⁰ FAO and its partners are reinforcing tree seed systems in Burkina Faso, Eritrea, Ethiopia, Fiji, Gambia, Haiti, Mali, Mauritania, Niger, Nigeria, Senegal and Sudan as part of the efforts to restore forests and trees. Furthermore, the Forest and Landscape Restoration Mechanism (FLRM)²¹ has expanded its activities and is currently supporting large-scale restoration initiatives with different donors and partners in 20 countries.²² These projects are increasingly exploring ways to also enhance the management of FGR and to restore genetically diverse forests.

26. Once launched, the new global information system on FGR can also support the development of new GEF and GCF projects by making available data, for example, on tree seed and breeding programmes, as well as on seed production capacity for different species. This information can also benefit the implementation of ongoing projects.

27. In 2022, FAO opened a call for case studies of the use of agricultural biotechnologies to meet the needs of smallholders in developing countries.²³ Selected case studies from different sectors, including forestry, will be published in 2023.

d) Policies, institutions and capacity building (Priority Area 4)

28. National policies and regulatory frameworks for FGR are often partial, ineffective or non-existent. This situation results from the fact that FGR are often not properly managed and that awareness of their importance is low in many countries. The Global Plan of Action calls for the development of national strategies for FGR and stresses the importance of awareness raising and capacity building at all levels. The Global Plan of Action recognizes the need to reinforce regional and international collaboration, and to mobilize the necessary resources, including financing, for the conservation, sustainable use and development of FGR. The Commission, at its Eighteenth Regular Session, requested FAO to continue its efforts in increasing international awareness of the Global Plan of Action and the importance of FGR.²⁴

29. FAO continued during the reporting period to collaborate with regional networks on FGR, and also plans to strengthen their role in the implementation of the Global Plan of Action, subject to the availability of extra-budgetary resources. FAO also continued collaborating with its international partners, in particular with Bioversity International, BGCI, RBG and World Agroforestry.

management and restoration of degraded forestlands in the Philippines (2021–2025); Landscape restoration for ecosystem functionality and climate change mitigation in the Democratic Republic of Sao Tome and Principe (2018–2024); Landscape approach to riverine forest restoration, biodiversity conservation and livelihood improvement in Sudan (2022–2024); Integrated landscape management in dry miombo woodlands of the United Republic of Tanzania (2021–2027); Strengthening the conservation of biodiversity and sustainable management of forest landscapes in Türkiye's Kazdaglari Region (2022–2027); Sustainable management of forests in mountain and valley areas in Uzbekistan (2018–2025).

¹⁹ Argentina, Armenia, Chile, Colombia, Congo, Côte d'Ivoire, Cuba, Guatemala, Kyrgyzstan, Nepal, Paraguay and Sudan. Further information on FAO-led GCF projects is available at: <http://www.fao.org/climate-change/international-finance/green-climate-fund/en/>

²⁰ <http://www.fao.org/in-action/action-against-desertification/en/>

²¹ <http://www.fao.org/in-action/forest-landscape-restoration-mechanism/en/>

²² Burkina Faso, Cambodia, Central African Republic, Democratic Republic of the Congo, Fiji, Guatemala, Kenya, Lebanon, Malawi, Morocco, Niger, Pakistan, Peru, the Philippines, Guinea, Rwanda, Sao Tome and Principe, Uganda and Vanuatu.

²³ <https://www.fao.org/research-extension-systems/resources/detail/en/c/1492888/>

²⁴ CGRFA-18/21/Report, paragraph 63.

30. During the XV World Forestry Congress, held in Seoul, Republic of Korea, from 2 to 6 May 2022, FAO, Bioversity International and World Agroforestry organized a session on the role of FGR and integrated management of pests and diseases in maintaining healthy and resilient forests. The aim of the session was to increase awareness among policymakers and practitioners of the importance of FGR and integrated management of pests and diseases in the context of forest management, biodiversity conservation and climate-change mitigation and adaptation. The recording of the session is available through the FAO website.²⁵

31. In October 2022, the Twenty-sixth Session of the FAO Committee on Forestry reviewed the draft *2024-27 Action Plan for the Implementation of the FAO Strategy on Mainstreaming Biodiversity across Agricultural Sectors*.²⁶ The Committee recommended that FAO also take into account developments under the Commission and its Working Group on FGR when finalizing the Action Plan.²⁷ Following a request by the Committee at its Twenty-fifth Session,²⁸ FAO also published in 2022, in collaboration with the Center for International Forestry Research, a study on biodiversity mainstreaming in forestry.²⁹ The study analysed the progress made in integrating biodiversity aspects into forest policies and management practices and stressed the importance of managing FGR.

32. In the context of the FLRM work, FAO also reviewed, in collaboration with the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme (UNEP), the activities of The Restoration Initiative (TRI).³⁰ The review shows that the TRI country projects created a high demand for tree seed, and that the projects are increasingly paying attention to the importance of FGR. The need to pay attention to the proper management of FGR is also supported by a study published by FAO in 2021³¹ addressing the implementation of forest and landscape restoration in Africa. The study identified as major challenges the inadequate supply of tree seeds for restoration and issues related to the genetic diversity of the seeds used.

33. As requested by the Commission,³² FAO updated the *Voluntary Guidelines for Preparing a National Strategy for Forest Genetic Resources* with examples of approaches based on the country reports received by FAO for the preparation of the Second Report. The publication will be made available on the FAO website.³³

III. REVIEW OF THE GLOBAL PLAN OF ACTION

34. The Global Plan of Action, adopted by the FAO Conference in 2013, constitutes a rolling document that can be updated in line with any follow-up that the Commission may decide upon.³⁴ It is a voluntary and non-binding policy instrument and was developed on the basis of strategic priorities identified by the first global assessment on FGR.³⁵ The Commission's Multi-Year Programme of Work foresees a review of the Global Plan of Action at the Commission's Twentieth Regular Session.

35. The Working Group may therefore wish to consider how the review of the Global Plan of Action should be undertaken. The review of the Global Plan of Action could be undertaken in two

²⁵ <https://www.fao.org/event/world-forestry-congress/wfc-programme/sub-theme-sessions/sub-theme-2/en>

²⁶ COFO/2022/6.2, Annex 2.

²⁷ COFO/2022/REP, paragraph 22e.

²⁸ COFO/2020/REP, paragraph 17b.

²⁹ Harrison, R.D., Shono, K., Gitz, V., Meybeck, A., Hofer, T. & Wertz-Kanounnikoff, S. 2022. *Mainstreaming biodiversity in forestry*. FAO Forestry Paper, No. 188. Rome, FAO and Bogor, Indonesia, CIFOR. <https://doi.org/10.4060/cc2229en>

³⁰ IUCN, FAO & UNEP. 2022. *The Restoration Initiative: 2021 Year in Review*. Rome. Available at <https://doi.org/10.4060/cc2051en>

³¹ Mansourian, S., & Berrahmouni, N. 2021. *Review of forest and landscape restoration in Africa*. Accra. FAO and AUDA-NEPAD. <https://doi.org/10.4060/cb6111en>

³² CGRFA-18/21/Report, paragraph 63.

³³ <https://www.fao.org/forest-genetic-resources/en/>

³⁴ FAO. 2014. *Global plan of action for the conservation, sustainable use and development of forest genetic resources*. Rome, paragraph 7.

³⁵ FAO. 2014. *The State of the World's Forest Genetic Resources*. Rome. <https://www.fao.org/3/i3825e/i3825e.pdf>

steps. In a first step, Commission Members and stakeholders could consider the findings of the Second Report and other relevant information with a view to identifying new priority areas or existing priority areas that should be amended. In a second step, the Working Group could consider the recommendations, as consolidated by the Secretariat.

36. During the first phase regional and/or subregional consultations could be held to analyse, based on the findings of the Second Report, the status of FGR and identify possible changes to, and gaps in, the Global Plan of Action. The consultations could be organized as in-person or online meetings, subject to the availability of extra-budgetary financial resources, or through a written correspondence procedure.

37. During the second phase, the Secretariat could prepare a document summarizing the recommendations arising from the consultations and presenting options for their implementation, for consideration by the Working Group and the Commission. However, it should be kept in mind that changing the Global Plan of Action may not be the only option the Working Group may wish to consider in response to the findings of the Second Report. When changing the Global Plan of Action, implications for the monitoring of its implementation, including the targets, indicators and verifiers for FGR, as adopted by the Commission, should also be considered. Therefore, the outcome of the review of the Global Plan of Action could also be a self-standing document stressing or de-emphasizing certain priority areas of the Global Plan of Action or identifying additional priority areas.

38. At its Twentieth Regular Session, the Commission could then review and finalize the updated Global Plan of Action or any other document that might be the outcome of the review process, and submit it, as appropriate, to the FAO Conference for endorsement or adoption.

IV. GUIDANCE SOUGHT

39. The Working Group may wish to take note of the activities undertaken in support of the implementation of the Global Plan of Action. It may also wish to take note of the preliminary Second Implementation Report, and provide guidance to the Commission in this regard. Furthermore, the Working Group may wish to recommend that the final Second Implementation Report be presented to the next session of the Commission, for its consideration.

40. The Working Group may wish to recommend that the Commission invite countries to continue implementing the Global Plan of Action, and encourage them to address the findings of the Second Implementation Report, as appropriate.

41. The Working Group may wish to recommend that:

- i. the Commission initiate the review of the Global Plan of Action, taking into account the findings of the Second Report;
- ii. regional consultations be held to review the Global Plan of Action in the light of the findings of the Second Report;
- iii. the Secretariat prepare, based on the outcome of the regional consultations, a draft revised Global Plan of Action or any other document, as appropriate, for consideration by the Working Group and the Commission.

42. The Working Group may further wish to recommend that the Commission encourage donors to support the implementation of the Global Plan of Action and the Funding Strategy for the Implementation of the Global Plan of Action for the Conservation, Sustainable Use and Development of Forest Genetic Resources, as adopted by the Commission in 2019.